CHEMFIT EPOXYGROUT MP NORMAL

3-Part, Multi Purpose Epoxy Grouting System – For Starter Bars, Anchors, Fasteners, Tie Rods, Crane Tracks & Bridge Bearings

PRODUCT DESCRIPTION

ChemFit EpoxyGrout MP Normal is a high-performance, three-part, multi-purpose epoxy grouting system designed for demanding anchoring and grouting applications. This advanced epoxy system combines an epoxy resin, hardener, and selected filler to produce a durable, high strength mortar with excellent adhesion to concrete, steel, and other substrates. The solvent-free formulation ensures zero VOC emissions and negligible shrinkage during cure. The standard curing characteristic provides a balanced working time suitable for most general anchoring and grouting applications. This product is designed for critical applications including starter bars, anchors, fasteners, tie rods, crane tracks, and bridge bearings where high strength, chemical resistance, and dimensional stability are essential.

PRIMARY APPICATIONS

ChemFit EpoxyGrout MP Normal is recommended for use in conditions such as:

- Starter bars and reinforcement bar anchoring into existing concrete
- Anchor bolts, fasteners, and tie rod fixing
- Crane tracks and rail grouting
- Bridge bearings and structural support points
- Machine foundation grouting and base plate leveling
- Cavity filling in concrete structures
- Post-installed rebar connections
- Structural bonding of concrete elements
- Chemical resistant flooring and containment areas

KEY FEATURES AND BENEFITS

- **Solvent free** – Zero VOC; safe for indoor and confined space use; no shrinkage
- **Standard curing** – Balanced working time for general applications
- **Multi purpose** – Versatile for anchors, grouting, bedding, and encapsulation
- **High strength** – Excellent compressive, tensile, and flexural strength
- **Three component system** – Consistent performance
- **Excellent adhesion** – Bonds strongly to concrete, steel, and masonry
- **Chemical resistant** – Resists oils, fuels, solvents, dilute acids, and alkalis
- **Waterproof** – Impermeable; ideal for encapsulation
- **Good yield** – Approximately 2,100 kg per cubic meter
- **Low shrinkage** – Negligible dimensional change during cure

PHYSICAL AND CHEMICAL PROPERTIES

Property	Specification
Appearance	Three component: Resin, Hardener, Filler
Color	Mixed: Gray
Form	Pourable paste after mixing
Basis	Epoxy resin with selected filler
Solvent Content	Nil (solvent free)
Density (mixed)	Approximately 2,100 kg/m³
Pot Life (at 25°C)	30 – 60 minutes (normal curing)
Initial Cure (at 25°C)	12 – 24 hours
Full Cure (at 25°C)	7 days
Application Temperature	+5°C to +35°C
Shrinkage	Negligible

MECHANICAL PROPERTIES

Property	Value (typical at 7 days / 25°C)
Compressive Strength	70 – 90 MPa (10,150 – 13,050 psi)
Tensile Strength	15 – 25 MPa (2,180 – 3,600 psi)
Flexural Strength	30 – 45 MPa (4,350 – 6,500 psi)
Bond Strength (to concrete)	> Concrete substrate failure
Elastic Modulus	8,000 – 12,000 MPa

NOTE: Mechanical properties depend on curing temperature, mixing accuracy, and proper substrate preparation.

PACKAGING AND STORAGE

Packaging:

- 12 kg unit (pre-weighed components)
- 144 kg bulk unit (pre-weighed components)

Storage:

- Store resin and hardener in original sealed containers at +10°C to +30°C
- Store filler in dry conditions, protected from moisture
- Protect from direct sunlight, extreme heat, and freezing
- Keep containers tightly closed when not in use

Shelf life: 24 months from date of manufacture when stored properly

DOSAGE AND COVERAGE RATES

The density of mixed **ChemFit EpoxyGrout MP Slow** is approximately 2,100 kg per cubic meter.

Container Size	Approximate Yield
12 kg unit	Approximately 5.7 liters
144 kg bulk unit	Approximately 68.6 liters

Coverage per 12 kg unit (area x depth):

- At 10 mm depth: Approximately 0.57 m^2
- At 25 mm depth: Approximately 0.23 m^2
- At 50 mm depth: Approximately 0.11 m^2

NOTE: One cubic meter (1 m^3) of mixed epoxy grout requires approximately 2,100 kg of material (175 units of 12 kg).

APPLICATION GUIDLINES

Surface Preparation:

- Substrate must be clean, sound, and free from dust, oil, grease, laitance, loose particles, and curing compounds
- For damp conditions: remove standing water; surface can be moist but not saturated
- Concrete: mechanically abrade (grinding, shot blasting, scabbling) to achieve open texture
- Steel: remove rust, scale, and oil by sandblasting or wire brushing
- Drill holes to specified diameter and depth; clean with compressed air and brush
- For moisture tolerant performance, do not remove all moisture – surface dampness is acceptable

Mixing:

- Pre-mix each component individually before combining
- Combine according to specified mix ratio on product label
- Mix with low-speed drill (400-600 rpm) for 3-5 minutes until uniform, lump-free, pourable consistency
- Scrape sides and bottom during mixing; avoid introducing air
- Use entire batch within pot life (60-120 minutes at 25°C – longer in cooler weather, shorter in hot)

Placement:

- Pour or inject continuously from one side to allow air to escape
- For anchor bolts and starter bars: pour grout into hole before inserting bar, or inject after placement
- For crane tracks and bridge bearings: pour or pump into prepared cavity
- Do not use mechanical vibration
- Deep pours exceeding 100 mm: place in layers
- For underwater applications: use specialized placement methods (consult ChemFit)

Curing:

- Cure undisturbed above +10°C for minimum 24 hours before light loading; 7-14 days for full strength
- Moisture tolerant formulation allows curing in damp conditions – standing water should be avoided
- Lower temperatures slow curing; higher temperatures accelerate curing
- Do not apply below +5°C or when temperatures expected to drop below +5°C within 24 hours

HEALTH AND SAFETY

Epoxy resins and hardeners may cause skin and eye sensitization and irritation. If eye contact occurs, rinse with water for 15 minutes and seek medical attention. For skin contact, wash immediately with soap and water; remove contaminated clothing. If swallowed, seek medical attention immediately – do not induce vomiting. Use gloves (nitrile), safety glasses, and protective clothing during handling. Ensure adequate ventilation – use respiratory protection if ventilation is poor. Refer to the Safety Data Sheet for detailed information.

CLEAING OF TOOLS

Clean all mixing equipment, tools, and spillages with solvent (acetone, xylene, or epoxy thinner) immediately after use before material cures. Dried epoxy requires mechanical removal. Dispose of cleaning materials in accordance with local regulations.

APPROVALS AND STANDARDS

ChemFit EpoxyGrout MP Normal conforms to the following standards:

- **ASTM C881 / C881M** – Standard Specification for Epoxy-Resin-Bonding Systems for Concrete (Type II, Grade 3, Class B – suitable for moisture tolerant applications)
- **ASTM C579** – Standard Test Method for Compressive Strength of Chemical-Resistant Mortars, Grouts, and Monolithic Surfacings
- **ASTM C307** – Standard Test Method for Tensile Strength of Chemical-Resistant Mortar, Grouts, and Monolithic Surfacings
- **100% solids, solvent-free formulation** – Zero VOC emissions
- Suitable for starter bars, anchors, fasteners, tie rods, crane tracks, and bridge bearings

LEGAL NOTES

All technical data provided in this Product Data Sheet is based on laboratory testing under controlled conditions. Actual field performance may vary due to differences in substrates, application methods, site conditions, and environmental factors. ChemFit makes no warranty of merchantability or fitness for a particular purpose. Users shall conduct their own trials to validate product suitability for the intended application. ChemFit reserves the right to modify product specifications without prior notice. For the most current documentation, request the latest Product Data Sheet and Safety Data Sheet from ChemFit.

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